

C/CAG

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

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Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside

1:15 p.m., Thursday, July 19, 2007
San Mateo County Transit District Office¹
1250 San Carlos Avenue, Second Floor Auditorium
San Carlos, California

TECHNICAL ADVISORY COMMITTEE (TAC) AGENDA

- | | | |
|---|-------------------|---------------|
| 1. Public comment on items not on the Agenda (presentations are customarily limited to 3 minutes). | Porter/
McAvoy | No materials. |
| 2. Issues from the last C/CAG and CMEQ meeting (May and June 07): <ul style="list-style-type: none">• Approved – C/CAG 2007/08 Program Budget and Fees• Approved – Implementation of Countywide Stormwater Program projects to be funded under AB1546• Approved – Funding agreements with various cities and the Alliance for Congestion Relief Program shuttle services for \$657,965 (Jul 07 – Jun 08)• Approved – Amendment to the funding agreement with the San Mateo County Transportation Authority to an additive amount of \$1.5M for joint or co-sponsored programs• Approved – Appointments of Jim Porter and Bill Meeker to the CMP TAC and Zoe Kersteen-Tucker to the CMEQ Committee | Hoang | No materials. |
| 3. Approval of the Minutes from May 17, 2007. | Hoang | Pages 1-4 |
| 4. Approval of the AB1546 Countywide Congestion Management Program for ITS Projects (Action) | Hoang | Pages 5-11 |
| 5. Review and recommend approval of the Draft 2007 Congestion Management Program (CMP) and Monitoring Report (Action)* | Hoang | Pages 12-15 |
| 6. Member Reports. | All | |

* *Report provided separately*

¹ For public transit access use SamTrans Bus lines 390, 391, 292, KX, PX, RX, or take CalTrain to the San Carlos Station and walk two blocks up San Carlos Avenue. Driving directions: From Route 101 take the Holly Street (west) exit. Two blocks past El Camino Real go left on Walnut. The entrance to the parking lot is at the end of the block on the left, immediately before the ramp that goes under the building. Enter the parking lot by driving between the buildings and making a left into the elevated lot. Follow the signs up to the levels for public parking.

2007 TAC Roster and Attendance				
Member	Agency	Jan	Feb	Mar
Ian McAvoy (Co-Chair)	SamTrans	yes	yes	yes
Jim Porter (Co-Chair)	San Mateo County Engineering	x	x	
April Chan	Peninsula Corridor JPB	yes		
Duncan Jones	Atherton Engineering	yes	yes	yes
Gene Gonzalo	CalTrans			
George Bagdon	Burlingame Engineering	yes	yes	
Jon Lynch	Redwood City Engineering	yes	yes	yes
Joseph Hurley	SMCTA	yes	yes	yes
K. Folan	MTC			
Larry Patterson	San Mateo City Engineering	yes	yes	yes
Liz Cullinan	San Carlos Planning	yes	yes	yes
Mark Duino	San Mateo County Planning	yes		yes
Bill Meeker / Meg Monroe	Burlingame Planning	yes	yes	yes
Mo Sharma	Daly City Engineering	yes	yes	yes
Parviz Mokhtari	San Carlos Engineering	yes	yes	yes
Randy Breault	Brisbane Engineering	yes		yes
Ray Davis	Belmont Engineering	yes	yes	
Ray Towne	Foster City Engineering	yes	yes	yes
Reza (Ray) M. Razavi	South San Francisco Engineering	yes	yes	yes
Rick Mao	Colma Engineering		yes	yes
Ruben Nino	Menlo Park Engineering	yes		
Sandy Wong	C/CAG CMP	yes	yes	yes
Tatum Mothershead	Daly City Planning	yes	yes	yes
Van Ocampo	Pacifica Engineering	yes	yes	
Vacant	TBD			

**TECHNICAL ADVISORY COMMITTEE (TAC)
FOR THE
CONGESTION MANAGEMENT PROGRAM (CMP)**

**May 17, 2007
MINUTES**

The one hundred sixty-fifth (166th) meeting of the Technical Advisory Committee (TAC) was held in the SamTrans Offices, 1250 San Carlos Avenue, San Carlos, Bacciocco Auditorium. Co-chair McAvoy called the meeting to order at 1:20 p.m. on Thursday, May 17, 2007.

TAC members attending the meeting are listed on the Roster and Attendance on the preceding page. Others attending the meeting were: John Hoang - C/CAG; Brian Lee – San Mateo County Public Works; Jim Bigelow – CMEQ; Khee Lim – City of Millbrae; Zachary Chop – Caltrans; Pat Dixon - SMCTA CAC; Anthony Docto – City of East Palo Alto; Christine Maley-Grubl – The Alliance

1. Public comment on items not on the agenda.

Meg Monroe introduced Bill Micker, new Community Development Director in Burlingame who will be replacing Ms. Monroe.

2. Issues from the last C/CAG and CMEQ meetings.

As shown on the Agenda.

3. Approval of the Minutes from January 18, 2007.

Approved.

4. Measure A Update – Strategic Plan Development

Joe Hurley presented that the TA is continuing to work with the consultants to evaluate the projects and proposed setting up a special meeting with the TAC members to discuss details of the Strategic Plan. Chair McAvoy recommended that staff survey TAC members with some meeting dates for a 2-3 hours meeting for late June or July.

5. AB1546 Countywide Congestion Management Program – Congestion Mitigation Recommendations

John Hoang presented on the proposed projects to be funded by the AB1546. The projects, which were recommended by the subcommittee, are categorized under Intelligent Transportation System (ITS) and include upgrading signal controllers and video detection systems. The total amount available for the ITS projects will be approximately \$1.25M with a maximum of \$200,000 per jurisdiction. Applications will be scored and prioritized based on the type of intersection, intersection volume, and years in service (applicable to signal controllers only). It was suggested that the Committee provide suggestions on establishing intersection volume ranges to complete the scoring criteria for the signal controller upgrade projects.

Questions and comments from the Committee included the following:

- It was suggested that the cap be lowered to allow more jurisdictions to receive funding.
- The projects are scalable based on the number of applications received and type of projects requested. A city may apply for the maximum of \$200,000 but may receive up to \$100,000 due to the high number of projects awarded.
- Upgrading to Model 2070 traffic controller cabinets will enable cities to interconnect signals and improve signal coordination. The estimated cost per cabinet may be in the \$10,000 -
- It was requested that the intersection volume criteria be revisited and other criteria such as LOS, peak hour volume, be considered.

It was requested that this item be taken back to the Subcommittee to review and finalize the scoring criteria, specifically establishing ranges for the intersection volumes and reconsiderations of the cap amount.

6. Recommend approval of staff to work with local jurisdictions and transportation agencies to provide candidate project information for the MTC Regional Transportation Plan (RTP) update

Sandy Wong reported that the MTC is in the process of updating the RTP. In addition to the previously identified goals of safety, maintenance, reliability, mobility, clean air, and efficient freight travel, MTC has added other goals to comply with the new SAFETY-LU. These goals include safety for non-motorized users, security related to homeland security and transportation, and linkages between transportation land use. MTC requested that the CMAs submit updated project lists by July 27, 2007 for inclusion in the RTP. The projects will be evaluated through performance measures which includes delay time savings, vehicle hours of travel, and pollutant emissions. Local agencies will need to submit projects through the CMA (C/CAG).

Questions and comments from the Committee included the following:

- Sandy will be contacting individual project sponsors for updates to the projects that were listed in the 2005 RTP and new projects.
- Projects sponsors will need to coordinate with Sandy. Project sponsors will be responsible for updating changes to scope and cost.
- Measure A projects included in the 2005 RTP will be updated.

The TAC approved the recognition of the process for submitting the projects and to have jurisdictions coordinate with C/CAG on submitting projects. It was requested that a list of projects be brought back to the TAC for review and approval.

7. Initial draft of the C/CAG 2007/08 Budget and Fees

Sandy Wong presented the C/CAG FY07/08 budget and highlighted the following:

- The C/CAG member agency assessments will increase by 5%.

- \$400,000 will be programmed in the STIP (Planning, Programming, and Monitoring)
- The C/CAG Board reauthorized the Congestion Relief Plan and the increased amount of \$1.85M.

TAC members indicated that some cities might have not received the letter stating a 5 % increase in member agency assessments. C/CAG will follow-up and make sure that member agencies receive appropriate notification regarding the member assessments.

The TAC acknowledged discussion of the C/CAG FY07/08 budget but no action was taken.

8. Review and approval of the funding recommendations for the provision of congestion relief program shuttle services for a total cost not to exceed \$667,965 from July 1, 2007 through June 30, 2008

Sandy Wong presented the proposed shuttle program to be funded through the Congestion Relief Program funds.

Questions and comments from the TAC included:

- How do we make sure that money isn't wasted on under-performing project(s), do we collect performance information? Last year's ridership information is available and can be provided to the TAC.
- Would it be possible for uncommitted program funds (i.e., difference between \$667,965 and the maximum budget of up to \$800,000) be used to fund other shuttle services? As appropriate, other shuttle services interested in applying for the remaining program funds can make the request through C/CAG. Additional projects, if approved, would be brought back the TAC for approval.

The TAC approved the item with the inclusion that C/CAG will monitor and report back to TAC on a quarterly basis regarding project performance information.

9. Support for Senate Bill (SB) 286 (Lowenthal and Dutton), Transportation Bonds: Implementation

John Hoang presented the information item on the SB 286 summarizing the proposed implementation plan for Proposition 1B to expedite the allocation of the local streets and roads improvement funds.

Brian Lee added that paragraph 7 in the legislation had been amended to state that jurisdictions that did not comply shall reimburse the state for all ineligible expenditures for that fiscal year. In addition, jurisdictions will have three fiscal years to expend the funds from the date that the funds are allocated from the State Controllers.

10. Member Reports

Co-chair McAvoy expressed appreciation to all members who have been attending the Committee meetings regularly and pointed out that Caltrans and MTC have been notably

absent from the meetings. It was requested that staff follow-up with these agencies and request that their respective representative make an effort to attend on a regular basis.

Meeting adjourned.

C/CAG AGENDA REPORT

Date: July 19, 2007
To: CMP Technical Advisory Committee (TAC)
From: Richard Napier
Subject: Recommendation for approval of the AB1546 Countywide Traffic Congestion Management Program for Intelligent Transportation System (ITS) projects
(For further information contact John Hoang at 363-4105)

RECOMMENDATION

That the TAC recommends for approval the AB1546 Countywide Traffic Congestion Management Program for ITS projects

FISCAL IMPACT

Approximately \$1.25M of the net revenue collected between July 2005 and December 2008 for the Traffic Congestion Management component of AB1546.

SOURCE OF FUNDS

Funds for these projects are collected from the Vehicle License Fees (VLF) through the AB1546 Program.

BACKGROUND/DISCUSSION

Assembly Bill 1546 (AB1546) imposes an annual fee of up to four dollars (\$4) on motor vehicles registered in San Mateo County to fund traffic congestion management and stormwater pollution prevention programs. The collection of the fees began on July 1, 2005 and terminates on January 1, 2009, unless the program is reauthorized by legislation. Fifty percent of the revenue is allocated to individual jurisdictions within San Mateo County and fifty percent is allocated to C/CAG for Countywide projects (25% for traffic congestion management and 25% for stormwater pollution prevention).

Current Countywide Traffic Congestion Management related projects include the development and implementation of hydrogen shuttles and fueling stations and development of the traffic incident management plan. At the January 2007 TAC meeting, it was recommended that staff convene a subcommittee to explore other potential projects to be implemented.

A subcommittee was formed consisting of Parviz Mokhtari, Ruben Nino, Larry Patterson, Mo Sharma, and Sandy Wong. The subcommittee considered several potential projects to mitigate traffic congestion and resulted with recommendations for upgrading traffic signal controllers and upgrading traffic detection systems with closed circuit television (CCTV) cameras. In addition to facilitating the management of traffic, the proposed traffic control and monitoring upgrades

will also be key infrastructures in the development of an integrated countywide ITS program to improve inter-jurisdictional traffic management.

This item was initially presented at the May 2007 TAC and CMEQ meetings and comments and suggestions were received. The subcommittee reconvened and refined the application and project selection process. The revised AB1546 Countywide Traffic Congestion Management Program for ITS projects are described in the attached document.

ATTACHMENT

AB1546 – Countywide Traffic Congestion Mitigation Program - ITS Projects

AB1546 - Countywide Traffic Congestion Management Program

Intelligent Transportation System (ITS) Projects

Revised 6/13/07

Overview

The AB1546 imposes an annual motor Vehicle License Fee of four dollars (\$4) in San Mateo County to fund traffic congestion and stormwater pollution prevention programs for the period of July 1, 2005 to December 31, 2008. The net total of the funds collected are allocated to the following programs:

- 25% - Local Cities/County Stormwater Pollution Prevention
- 25% - Local Cities/County Traffic Congestion Management
- 25% - Countywide Stormwater Pollution Prevention
- 25% - Countywide Traffic Congestion Management

Budget

Revenue collected under the Countywide Traffic Congestion Management programs currently fund Hydrogen Shuttle/Stations and Traffic Incident Management. It is proposed that these funds are also used for ITS related projects for upgrading traffic signal controllers and traffic detection systems. The projects and anticipated funding amounts are summarized as follows:

Countywide Traffic Congestion Management	FY 2005/06	FY2006/07	FY2007/08	Jul-Dec 2008	TOTAL
REVENUE					
• AB 1546	\$600,000	\$600,000	\$600,000	\$300,000	\$2.1M
PROJECT BUDGET (Expenditure)					
• Hydrogen Shuttle / Stations	\$250,000	\$125,000	\$125,000	-	\$500,000
• Traffic Incident Management	\$100,000	\$100,000	\$100,000	\$50,000	\$350,000
• ITS (Signal, CCTV)	\$250,000	\$375,000	\$375,000	\$250,000	\$1.25M

Approximate amounts

Project Description

The two types of projects eligible for funding include:

- Signal Control Upgrade (*approx. \$10-15K per controller*)
 - Signal controller upgrades is the replacement of current older controller cabinets with the new Model 170, 2070 or comparable model.
- Video Detection System Upgrade (*approx. \$35-40K per intersection*)
 - Video detection system upgrade is the installation of new Closed Circuit Television (CCTV) cameras on traffic signals to replace the in-pavement detection loops. A video detection system assumes an industry standard camera system and associated equipments for all approaches of an intersection.

Application Process

There will be a one time "Call for Projects", anticipated in September 2007. The total available funds of \$1.25M will be awarded to projects on a competitive basis. Jurisdictions will be able to apply for funding to reimburse ITS projects performed up to December 31, 2008. All projects are required to be completed (installation of ITS units) by December 31, 2008.

The maximum award amount a jurisdiction can receive has been established at \$200,000. There are no local match requirements. Estimated cost for a Signal Controller upgrade is \$10-15K per controller and for a Video Detection System upgrade is \$35-40K per intersection. Based on these estimates, jurisdictions can either apply for up to a maximum of thirteen (13) Signal Controllers, five (5) Video Detection Systems or a combination of both elements with a combined total of up to a maximum of \$200,000.

There will not be a predetermined dollar amount breakdown between the two project types. The total number of funded projects and maximum award amount per project is scalable and will be determined based on the total number of applications and type of projects received, total dollar amount requested, and the final project ranking and recommendations. The Selection Committee will consider all factors when establishing the final project recommendations. Since this is a competitive process, there are no guarantees that a jurisdiction will receive funding.

Project Selection

Jurisdictions will be required to submit the following project information as part of the application.

- For Signal Controller Upgrades
 - Identify intersecting streets names and roadway classification
 - Provide Total Intersection Peak Hour Volume (i.e., Peak hour traffic volume on each approach of the intersection)
 - Indicate age of the in-place controller that will be replaced
- For Video Detection Upgrades
 - Identify intersection street names and roadway classification
 - Provide Total Intersection Peak Hour Volume (i.e., Peak hour traffic volume on each approach of the intersection)

Projects will be scored using the "Scoring and Prioritization" table below.

Project Type	Points	Maximum Points
1. SIGNAL CONTROLLER UPGRADE		18
Location		
• Arterial/Arterial	6	
• Arterial/Collector	4	
• Collector/Collector	2	
Total Intersection Peak Hour Volume		
• Top 20%	6	
• Middle 40%	4	
• Bottom 40%	2	
Years in Service		
• > 15	6	
• 10 to 15	4	
• < 10	2	

2. VIDEO DETECTION SYSTEM UPGRADE		
Location		
• Arterial/Arterial		6
• Arterial/Collector		4
• Collector/Collector		2
Total Intersection Peak Hour Volume		
• Top 20%		6
• Middle 40%		4
• Bottom 40%		2

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Proposed projects will be ranked in order (highest to lowest) by total points under the two “Project Types”. The project selection will occur in two steps. For the initial step, a maximum of \$100,000 may be awarded to each jurisdiction based on selection of the top ranked projects. For the second step, any remaining funds will be allocated for the next priority projects and no jurisdiction shall receive more than \$200K in aggregate for all projects. Projects are selected until all the available funds are allocated.

Reimbursements

Upon completion of the projects, jurisdictions will provide C/CAG a written notice on jurisdiction letterhead and signed by the City Manager requesting for reimbursement. Included with the letter will be proof that the project was completed and paid for. C/CAG will reimburse the actual construction and construction engineering costs incurred by the jurisdiction up to the award amount per project.

AB 1546
COUNTYWIDE TRAFFIC CONGESTION MITIGATION PROGRAM
INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PROJECTS
APPLICATION

JURISDICTION:	
TOTAL AMOUNT REQUESTED: <i>(Maximum award amount of \$200,000 per jurisdiction)</i>	\$
CATEGORY / PROJECT TYPE: <i>(Please check applicable boxes)</i>	
Intelligent Transportation System (ITS)	<input type="checkbox"/> Signal Controller Upgrade <input checked="" type="checkbox"/> Video Detection System Upgrade

1. SIGNAL CONTROLLER UPGRADE <i>(Model 2070 or comparable)</i>			
Number of Units Requested:		Upgrade Unit Cost:	\$
Total Amount Requested:			\$
List units to be replaced in order of priority <i>(add additional lines or page as needed, maximum 13 locations)</i>			
No.	Location (e.g., Street name, intersection, roadway classification)	Intersection Volume*	Years in Service
1			
2			
3			
4			
5			

* Attach diagram to show peak hourly traffic volumes in each approach of the intersection.

2. VIDEO DETECTION SYSTEM UPGRADE <i>(A system incl. 4 CCTV cameras per intersection)</i>			
Number of Systems Requested:		Upgrade System Cost:	\$
Total Amount Requested:			\$
List systems to be replaced in order of priority <i>(add additional lines or page as needed, maximum 5 locations)</i>			
No.	Location (e.g., Street name, intersection, roadway classification)	Intersection Volume*	
1			
2			
3			
4			
5			

* Attach diagram to show peak hourly traffic volumes in each approach of the intersection.

CONTACT INFORMATION	
Name1:	Name2:
Phone1:	Phone2:
Email1:	Email2:

I attest that, to the best of my knowledge, all information provided in this application and in conjunction with this application is accurate and complete.	
Signature:	Date:
Name: (Please Print)	Title: PW Director / City Engineer

C/CAG AGENDA REPORT

Date: July 19,2007

To: CMP Technical Advisory Committee

From: John Hoang

Subject: Review and Recommend approval of the Draft 2007 Congestion Management Program (CMP) and Monitoring Report

(For further information contact John Hoang at 363-4105)

RECOMMENDATION

That the TAC accept the 2007 Draft Congestion Management Program (CMP) and Monitoring Report for San Mateo County and recommend it to the Congestion Management and Air Quality (CMAQ) Committee of the C/CAG Board.

FISCAL IMPACT

It is not anticipated that the changes in the 2007 document will result in any increase in the current fiscal commitment that C/CAG has made to the Program.

BACKGROUND/DISCUSSION

Every two years, C/CAG as the Congestion Management Agency for San Mateo County, is required to prepare and adopt a Congestion Management Program (CMP). C/CAG is also required to measure the roadway segments and intersections on the Congestion Management Program roadway network to determine the change in LOS from one period to the next. This is a report card on whether the roadway system is improving or getting worse.

As part of the 2007 CMP update, C/CAG has retained Fehr & Peers Transportation Consultants to monitor the roadway segments and intersections on the Congestion Management Program roadway network. As a result of this monitoring, C/CAG is required to determine what location(s), if any, has(have) exceeded the LOS standard that was established by C/CAG in 1991. Deficient locations are determined after deducting the traffic attributable to:

- Interregional travel.
- Construction, rehabilitation, or maintenance of facilities that impact the system.
- Freeway ramp metering.
- Traffic signal coordination by the state or multi-jurisdictional agencies.
- Traffic generated by the provision of low-income and very low income housing.
- Traffic generated by high-density residential development or mixed-use development (half of the mixed use development must be used for high density residential) within one-fourth

mile of a fixed rail passenger station.

If, after applying the above exclusions, a deficient location is identified, the C/CAG Travel Demand Forecasting Model is used to determine the origins of the traffic at the deficient locations to determine which jurisdictions must participate in the development of a deficiency plan. A jurisdiction must participate if the traffic it is contributing is greater than ten percent (10%) of the capacity of the deficient location. On February 14, 2002, C/CAG adopted the San Mateo County Congestion Relief Plan that fulfills the requirement of a Countywide Deficiency Plan for all roadway segment and intersection deficiencies identified through the monitoring done for the 1999, 2001, 2003, 2005, and 2007 Congestion Management Programs. Therefore no jurisdiction will be required to develop a deficiency plan as a result of this monitoring report.

2007 Traffic Monitoring Analysis

Based on the monitoring report and after the exclusions for interregional traffic has been applied, two of the 53 roadway segments exceeded the LOS standard. This compares with one deficient segment in 1997 and eight deficient segments in 1999, nine deficient segments in 2001 and four deficient segments in 2003, and five deficient segments in 2005.

It is noted that reductions for the 2001 through 2005 CMP Monitoring Reports were based on the 2000 C/CAG travel demand forecasting model's estimations. For the 2007 Monitoring Report, the reductions were updated based on the updated 2005 C/CAG travel demand forecasting model. The reductions applied in the 2007 Report are different than from past years.

The complete Monitoring Report is included in Appendix F of the Draft Congestion Management Program for 2007. The two roadway segments in violation of the LOS Standard in 2007 are:

- SR 1, San Francisco County Line to Linda Mar Boulevard
- SR 84, Willow Street to University Avenue

Both of the segments indicated above were also in violation in 2005. The following roadway segment that violated the LOS Standard in 2005 were found not to be in violation in 2007:

- SR 35, I-280 to SR 92
- SR 92, I-280 to US 101
- I-280, SR 1 (south) to San Bruno Avenue

For the sixteen intersections monitored, the 2007 traffic volumes, lane configurations, and signal phasing were used as inputs to the intersection level of service calculations. No reductions for inter-regional travel were applied to the intersection volumes. There were no LOS standard violations for intersections in 2007.

In 2005, in addition to utilizing the Circular 212 methodology, the 2000 Highway Capacity Manual (2000 HCM) was also used in parallel to calculate a second set of LOS results. The 2007 Monitoring Report continued to utilize both methods, however, the results obtained from the 2000 HCM were used to compare changes in LOS.

In general, the following are some observations from the data contained in the report. These observations are based on the total traffic. The exclusions for determining deficiencies are not considered in these observations.

- From 1997 to 1999 there was an increase in traffic at 24 locations and a decrease at 18 locations.
- From 1999 to 2001 there was an increase in traffic at 13 locations and a decrease at 14 locations.
- From 2001 to 2003 there was an increase in traffic at 6 locations and a decrease at 19 locations.
- From 2003 to 2005 there was an increase in traffic at 17 locations and a decrease at 11 locations.
- From 2005 to 2007 there was an increase in traffic at 15 locations and a decrease at 11 locations.
- From 1997 to 2007 there was an increase in traffic at 36 locations and a decrease at 14 locations.
- The number of LOS F (F designated the worse possible congestion) roadway segments has gone from 6 in 1995, to 8 in 1997, to 18 in 1999, to 16 in 2001, to 13 in 2003, to 12 in 2005, to 14 in 2007.
- The number of LOS F intersections has gone from 4 in 1995, to 4 in 1997, to 3 in 1999, to 1 in 2001, to none in 2003 and 2005, to 2 in 2007. The majority of intersections that were monitored were along Route 82 (El Camino Real).

Travel times were also measured for the U.S. 101 corridor between the San Francisco and Santa Clara County Lines. The U.S. 101 corridor was selected because, in addition to mixed-flow lanes, it includes High Occupancy Vehicle (HOV) lanes, bus routes, and passenger rail. Results are summarized in Table 3 below.

Table 3																
Average Travel Time in U.S. 101 Corridor (in minutes)¹																
Mode	AM ²								PM ³							
	Northbound				Southbound				Northbound				Southbound			
	2007	2005	2003	2001	2007	2005	2003	2001	2007	2005	2003	2001	2007	2005	2003	2001
Single-Occupant Auto	26	31	29	27	35	38	37	49	33	33	39	31	30	35	30	26
Carpool	26	30	28	25	31	31	29	38	31	32	34	31	29	32	25	25
Caltrain (Local & express)	35	42	43	44	34	42	49	48	38	42	49	49	34	42	46	45
SamTrans Route KX	75	72	68	66	78	72	74	76	80	79	75	75	81	75	72	71
Notes:																
¹ Between San Francisco and Santa Clara County Lines.																
² Morning commute period.																
³ Evening commute period.																

Travel time surveys were also conducted for the HOV lanes on U.S. 101, which currently extend from the Santa Clara County Line to Whipple Avenue. The total travel time for carpools was estimated by adding the travel time in the HOV lanes between the Santa Clara County Line and

Whipple Avenue to the travel time in the mixed-flow lanes between Whipple Avenue and the San Francisco County Line.

Travel times for bus and passenger rail modes were estimated based on SamTrans and Caltrain published schedules. SamTrans bus route KX operates in the U.S. 101 corridor. This route provides service through San Mateo County from San Francisco to Palo Alto. Travel times were based on the average travel time between County lines during the commute hours. Travel time via Caltrain was calculated in a similar manner.

ATTACHMENT

1. Draft 2007 Congestion Management Program (CMP) for San Mateo County
(Provided to TAC members only. Public members may contact John Hoang at 650-363-4105 if interested in receiving the document.)